MYCOTAXON

Volume 108, pp. 297–300 *April–June 2009*

A lyophylloid *Entoloma* species (*Basidiomycota*, *Entolomataceae*) from Italy

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Abstract—An interesting species of *Entoloma* with a habit reminiscent of *Lyophyllum decastes* is described as new from a coastal dunes grassland in Sardinia, Italy. A comparison is made with similar species in- and outside Europe.

Riassunto— Viene descritta un'interessante nuova specie di *Entoloma* con un aspetto simile a quello di *Lyophyllum decastes*, raccolta in un prato di una duna costiera in Sardegna, Italia.

Key words—new species, agarics, *Agaricales*, *Entoloma decastes*

Introduction

The genus *Entoloma* has been studied by the third author on a world-wide scale (Gates & Noordeloos 2007, Manimohan et al. 2006, Noordeloos 1980, 1981, 1987, 1992, 2004, 2008; Noordeloos & Hausknecht 2007). Although the *Entoloma* flora is well explored in Europe, many species can still be discovered, particularly in the Mediterranean region (e.g., Noordeloos & Polemis 2008, Vila & Caballero 2007). The current paper deals with a remarkable species from the Island of Sardegna, Italy, mimicking a *Lyophyllum* species.

Taxonomy

Entoloma decastes Contu, Consiglio & Noordel., **sp. nov.** Fig. 1
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Pileus 10–50 mm latus, parum carnosus, convexus deinde expansus, demum centro depressus, plerumque parvo obtuso vel acuto umbone praeditus, glaber, radialiter

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fibrillosus sed laevis, sericeus, jove udo omnino pellucide striatus, atrobrunneus disco nigro in iuventute, deinde clarior, brunneolus, margine saepe pallidiore. Lamellae angustae in iuventute deinde satis crassae, mediocriter confertae vel confertae, sinuato-adnatae, uncinato-adnatae usque ad subdecurrentes, in iuventute griseo-brunneolae, acie pallidiore integra vel leviter serrulata. Stipes 10–30 mm longus, 2–3 mm crassus, plerumque brevior quam pilei diametron, demum cavus, cylindraceus basi aequali vel leviter inflate, in iuventute spissa pruina alba omnino obtectus deinde sine pruina, fibrillis longitudinalibus concoloribus vel clarioribus exornatus; mycelio albo. Caro fragillima, aquosa, pilei nigricula, stipitis aquose griseola, immutabilis. Odor laevis, farinosus; sapor farinosus. Sporae in cumulo roseae.

Holotypus: *Sardinia, Olbia-Tempio, Aglientu, locality Montirussu, in a sandy grassland on acid soil, 23.11.2007, leg. G. Consiglio, M. Contu, L. Setti & L. Perrone (L).*

Etymology.— named after its resemblance to *Lyophyllum decastes.*

Description—Pileus 10–50 mm, thin-fleshed, convex, expanding to applanate with slightly depressed centre, hygrophanous, distinctly translucently striate at margin, dark brown with blackish centre, glabrous, shiny, sericeus, radially fibrillose but not squamulose. Lamellae crowded, sinuate-adnate or subdecurrent, thickish, broad, greyish at first then pinkish brown. Stipe 10–30 × 2–3 mm, short, cylindrical, brownish grey whitish at base, apex pruinose, downward fibrillose. Context thin, greyish, black in pileus, grey in stipe. Smell and taste farinaceous.

Spores 11–14 × 9–12 µm, Q = 1.2–1.35–1.45, 6–8 angled in side-view. Basidia 24–33 × 7–11 µm, 4-spored, clamped. Lamellar edge fertile. Hymenophoral trama regular, made up of inflated elements, 60–120 × 11–30 µm. Pileipellis a differentiated cutis, suprapellis made up of cylindrical, 2–9 µm wide hyphae, subpellis made up of inflated elements, 20–70 × 8–20 µm, gradually passing into trama. Pileitrama regular, made up of inflated elements, 70–130 × 5–30 µm. Pigment abundant, very dark brown intracellular-granular and also coarsely incrusting in pileipellis and upper pileitrama. Clamp-connections abundant.

Habitat: in dense clusters of many specimens, in coastal grassland on sandy soil.

Collections examined: Italy: Sardinia, Olbia-Tempio, Aglientu, locality Montirussu, in a sandy grassland on acid soil, 26.12.2005, 2.01.2006, leg. M. Contu, Herbarium MC.; ibidem, 23.11.2007, leg. G. Consiglio, M. Contu, L. Setti & L. Perrone, (L, **holotype;** Herbarium *G.Consiglio,* n. 07454, isotype).

Entoloma decastes is a remarkable species with a growth-form reminiscent of a miniature *Lyophyllum decastes* (Fr.) Singer. The dark colored basidiocarps, prominent, double pigmentation in the pileipellis and particularly the large spores are distinctive. Taxonomically, it belongs to subgenus *Rhodopolia*. *Entoloma difforme* Naveau, another lyophylloid species with a clustered growth form, clearly differs by having smaller spores and lack of incrusting pigment (Noordeloos 2004). *Entoloma myrmecophilum* var. *coalescens* Noordel. &

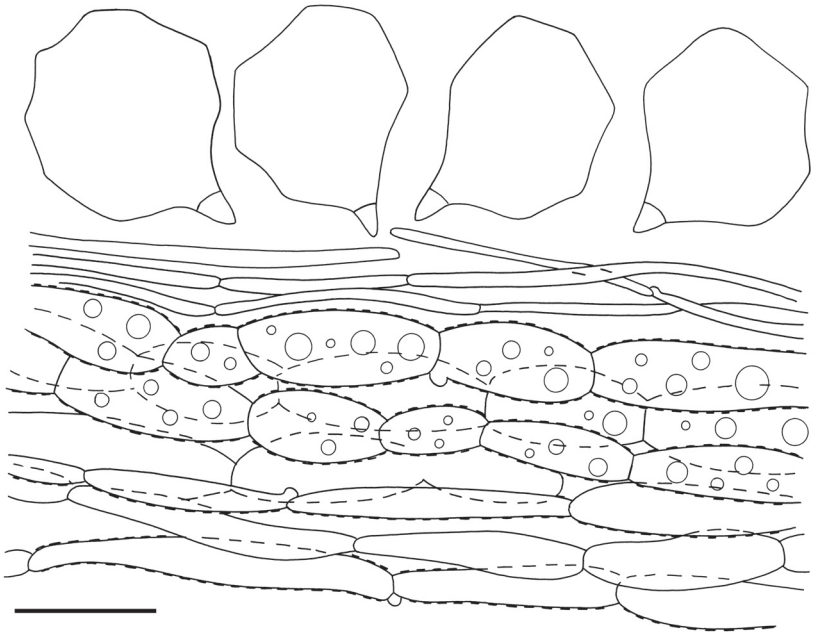

Fig. 1. *Entoloma decastes*. Holotype: spores and pileipellis. Bar = 10 μm.

Luhmann has a different stature, paler, not so distinctly translucently striate pileus, white stipe, and smaller spores. Some other dark colored species from the *Rhodopolia*, such as *E. gerriae* Noordel., *Entoloma griseopruinatum* Noordel. & Cheype have an opaque, not translucent, felted or pruinose pileus surface, and the latter also lacks incrusting pigment. *Entoloma fasciculatum* Hesler has a similar growth form, but differs by smaller spores and lack of incrusting pigment (Noordeloos 1988). Interestingly, no similar species have been encountered in temperate regions of Tasmania (Gates & Noordeloos 2007).

Acknowledgments

Mrs Anita Walsmit-Sachs prepared the line drawings for print, for which we are very grateful. Prof. Dr. Gabriel Moreno, and Dr. Irmgard Greilhuber are greatly acknowledged for their pre-submission review of this paper.

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